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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,175	08/06/2003	Nila Patil	200/1004-40	9177
31662	7590	10/26/2005		
PERLEGEN SCIENCES, INC. LEGAL DEPARTMENT 2021 STIERLIN COURT MOUNTAIN VIEW, CA 94043			EXAMINER BERTAGNA, ANGELA MARIE	
			ART UNIT	PAPER NUMBER
			1637	

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/635,175	Applicant(s) PATIL ET AL.	
	Examiner Angela Bertagna	Art Unit 1637	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-15 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-6 and 9-15, drawn to methods of analyzing a subset of nucleic acids by PCR, classified in class 435, subclass 091.200. The method of claims 1-6 comprises annealing ligate linkers containing a PCR primer binding site to a population of double-stranded genomic DNA fragments, containing single-strand overhangs produced by digestion with a Type IIs restriction enzyme(s), thereby producing a subset of nucleic acids with linkers bound at both ends, said subset to be amplified by PCR.

The method of claims 9-15 comprises annealing an adaptor containing fixed nucleotides and a PCR primer binding site to a population of double-stranded nucleic acids containing cleaved interrupted palindromic sequences at one or both ends derived from restriction enzyme digestion, thereby producing a subset of nucleic acids that comprise an adaptor sequence at both ends, said subset to be amplified by PCR.

II. Claims 7 and 8, drawn to a method of analyzing a subset of nucleic acids by PCR comprising annealing of a double-stranded branch primer to a population of single-stranded nucleic acids, extending the primer by DNA polymerase repeatedly to produce a subset of nucleic acids of a first size that comprise a partially double-stranded primer sequence at both ends,

and amplifying said subset by PCR, classified in class 435, subclass 091.200.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions, despite producing the same effect of reducing complexity in a sample of nucleic acids by selectively amplifying a subset of nucleic acids with a desired property, differ in the mode of obtaining said subset.

The methods of Group I utilize an initial population of double-stranded nucleic acids with single-stranded overhangs resulting from restriction enzyme digestion, whereas the method of Group II utilizes a single-stranded population of nucleic acids and does not require restriction enzyme digestion. The method of Group I produces the desired subset of nucleic acids by selectively annealing at least partially single-stranded ligate linkers or adaptors to the single-stranded overhangs of the double-stranded nucleic acid population, whereas the method of Group II utilizes annealing of a double-stranded branch primer to the double-stranded nucleic acid population and primer extension to produce the desired subset for PCR amplification. Therefore, although the methods of Group I and Group II produce the same general result, a subset of nucleic acids with reduced complexity to be amplified by PCR, they are sufficiently different to merit classifying these inventions as unrelated.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

3. A telephone call was made to Gulshan Shaver on October 14, 2005 to request an oral election to the above restriction requirement, but did not result in an election being made.

4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Bertagna whose telephone number is (571) 272-8291. The examiner can normally be reached on Monday - Friday, 7:30 - 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached at (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1637

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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KENNETH R. HORLICK, PH.D  
PRIMARY EXAMINER

10/24/05